

CLAIMS

What is claimed is:

1 1. A method for allowing a porthole engine to deliver unrequested content to users that
2 access requested content through the porthole engine, the method comprising the steps
3 of:
4 receiving, from a browser executing on a client, an initial request for requested
5 content;
6 wherein said initial request is received at said porthole engine;
7 wherein said client is connected to a network through said porthole engine;
8 wherein said requested content resides on an origin server located separate
9 from said porthole engine on said network; and
10 said porthole engine responding to said initial request by sending data to said client
11 that causes said requested content and said unrequested content to appear on a
12 display screen of said client.

1 2. The method of Claim 1 wherein web page content of said requested content is
2 modified to encapsulate said requested content within a paneled frame.

1 3. The method of Claim 1 wherein web page content of said requested content is
2 modified to reserve space in the web page to display said unrequested content.

1 4. The method of Claim 3 wherein the space reserved in the web page is selected from a
2 group consisting of:
3 the top of the web page;

4 the bottom of the web page; and
5 a combination of the top of the web page and the bottom of the web page.

1 5. The method of Claim 1 wherein web page content of said requested content is
2 modified to pop-up one or more display windows to display said unrequested content.

1 6. The method of Claim 1 wherein web page content of said requested content is
2 modified to replace a portion of said requested content with the unrequested content.

1 7. The method of Claim 1 wherein:
2 said requested content appears on a first portion of a content display region of
3 said browser; and
4 said unrequested content appears on a second portion of said content display
5 region of said browser.

1 8. The method of Claim 1 wherein:
2 said requested content appears on a first display window of said client; and
3 said unrequested content appears on a second display window of said client.

1 9. The method of Claim 1 wherein said porthole engine determines the format in which
2 to display said requested content and said unrequested content based on one or more
3 factors including at least one of differences in browsers, components of requested web
4 pages, and versions of the browsers.

1 10. The method of Claim 1 wherein the step of sending data to said client includes the
2 step of:
3 sending frame data to said client;
4 wherein said frame data defines a plurality of frames;
5 wherein said plurality of frames includes a first frame and one or more other
6 frames;
7 wherein said frame data further specifies that said requested content is to be
8 displayed in said first frame, and that said unrequested content is to be
9 displayed in said one or more other frames.

1 11. The method of Claim 10 further comprising the steps of:
2 the porthole engine receiving a series of subsequent requests from the browser
3 in response to the browser decoding said frame data, said series of
4 subsequent requests including a second request for said requested
5 content; and
6 the porthole engine responding to said second request for said requested
7 content by requesting said requested content from said origin server
8 and delivering said requested content to said browser.

1 12. The method of Claim 11 wherein said porthole engine determines that said second
2 request for said requested content is not an initial request for said requested content by
3 using information contained in the URL associated with said initial request and with
4 said second request.

1 18. The method of Claim 17 wherein the information about the particular user is selected
2 from a group consisting of:

3 information available to owners of the porthole engine;
4 information about the requested content; and
5 a combination of the information available to the owners of the porthole
6 engine and the information about the requested content.

1 19. The method of Claim 1 further comprising the step of identifying the users to
2 personalize the unrequested content.

1 20. The method of Claim 19 wherein the step of identifying the users is performed by a
2 method selected in a group consisting of:

3 attaching cookies to web pages that are browsed by a particular user;
4 observing the radius authentication transactions and the resulting network
5 address assigned to the client;
6 tracking network addresses assigned to the users; and
7 authenticating the users.

1 21. The method of Claim 1 wherein the requested content includes a web page form, and
2 the unrequested content includes information that automatically fills in one or more
3 fields of said web page form.

1 22. The method of Claim 21 including the step of automatically filling in said one or more
2 fields of said web page form upon determining that a web page being delivered
3 through said porthole engine is associated with said web page form and is registered
4 in the porthole engine as fillable.

1 23. The method of Claim 21 wherein the information that automatically fills in one or
2 more fields of said web page form is provided by a database coupled to the porthole
3 engine.

1 24. The method of Claim 1 wherein the porthole engine restricts access to particular web
2 pages by using content filtering technology based on identities of the users.

1 25. A computer-readable medium bearing instructions for allowing a porthole engine to
2 deliver unrequested content to users that access requested content through the porthole
3 engine, the computer-readable medium comprising instructions for performing the
4 steps of:

5 receiving, from a browser executing on a client, an initial request for requested
6 content;

7 wherein said initial request is received at said porthole engine;

8 wherein said client is connected to a network through said porthole engine;

9 wherein said requested content resides on an origin server located separate
10 from said porthole engine on said network;

11 said porthole engine responding to said initial request by sending data to said
12 client that causes said requested content and said unrequested content
13 to appear on a display screen of said client.

1 26. The computer-readable medium of Claim 25 wherein web page content of said
2 requested content is modified to encapsulate said requested content within a paneled
3 frame.

1 27. The computer-readable medium of Claim 25 wherein web page content of said
2 requested content is modified to reserve space in the web page to display said
3 unrequested content.

1 28. The computer-readable medium of Claim 27 wherein the space reserved in the web
2 page is selected from a group consisting of:
3 the top of the web page;
4 the bottom of the web page; and
5 a combination of the top of the web page and the bottom of the web page.

1 29. The computer-readable medium of Claim 25 wherein web page content of said
2 requested content is modified to pop-up one or more display windows to display said
3 unrequested content.

1 30. The computer-readable medium of Claim 25 wherein web page content of said
2 requested content is modified to replace a portion of said requested content with the
3 unrequested content.

1 31. The computer-readable medium of Claim 25 wherein:
2 said requested content appears on a first portion of a content display region of
3 said browser; and
4 said unrequested content appears on a second portion of said content display
5 region of said browser.

1 32. The computer-readable medium of Claim 25 wherein:
2 said requested content appears on a first display window of said client; and
3 said unrequested content appears on a second display window of said client.

1 33. The computer-readable medium of Claim 25 wherein said porthole engine determines
2 the format in which to display said requested content and said unrequested content
3 based on one or more factors including at least one of differences in browsers,
4 components of requested web pages, and versions of the browsers.

1 34. The computer-readable medium of Claim 25 wherein the step of sending data to said
2 client includes the step of:
3 sending frame data to said client;
4 wherein said frame data defines a plurality of frames;

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5 wherein said plurality of frames includes a first frame and one or more other
6 frames;
7 wherein said frame data further specifies that said requested content is to be
8 displayed in said first frame, and that said unrequested content is to be
9 displayed in said one or more other frames.

1 35. The computer-readable medium of Claim 34 further comprising instructions for
2 performing the steps of:
3 the porthole engine receiving a series of subsequent requests from the browser
4 in response to the browser decoding said frame data, said series of
5 subsequent requests including a second request for said requested
6 content; and
7 the porthole engine responding to said second request for said requested
8 content by requesting said requested content from said origin server
9 and delivering said requested content to said browser.

1 36. The computer-readable medium of Claim 35 wherein said porthole engine determines
2 that said second request for said requested content is not an initial request for said
3 requested content by using information contained in the URL associated with said
4 initial request and with said second request.

1 37. The computer-readable medium of Claim 34 wherein:

2 said porthole engine determines that said initial request is not a request for an
3 embedded item by using information contained in the URL associated
4 with said initial request and with said second request; and
5 the step of sending frame data is performed in response to determining that said
6 initial request is not a request for an embedded item.

1 38. The computer-readable medium of Claim 25 wherein the step of sending data to said
2 client includes the step of rewriting a link in an embedded frame document to affect
3 frame behavior.

1 39. The computer-readable medium of Claim 38 wherein the step of rewriting a link
2 includes the step of changing a target attribute of the link.

1 40. The computer-readable medium of Claim 25 wherein:
2 said porthole engine determines that said initial request is not a request for an
3 embedded item by using information contained in the URL associated
4 with said initial request and with said second request; and
5 said porthole engine sends data that causes said unrequested content to appear
6 on a portion of said content display region of said browser in response
7 to determining that said initial request is not a request for an embedded
8 item.

1 41. The computer-readable medium of Claim 25 further comprising instructions for
2 performing the step of using information about a particular user to tailor the
3 unrequested content to that particular user.

1 42. The computer-readable medium of Claim 41 wherein the information about the
2 particular user is selected from a group consisting of:
3 information available to owners of the porthole engine;
4 information about the requested content; and
5 a combination of the information available to the owners of the porthole
6 engine and the information about the requested content.

1 43. The computer-readable medium of Claim 25 further comprising instructions for
2 performing the step of identifying the users to personalize the unrequested content.

1 44. The computer-readable medium of Claim 43 wherein the step of identifying the users
2 is performed by a method selected in a group consisting of:
3 attaching cookies to web pages that are browsed by a particular user;
4 observing the radius authentication transactions and the resulting network
5 address assigned to the client;
6 tracking network addresses assigned to the users; and
7 authenticating the users.

1 45. The computer-readable medium of Claim 25 wherein the requested content includes a
2 web page form, and the unrequested content includes information that automatically
3 fills in one or more fields of said web page form.

1 46. The computer-readable medium of Claim 45 including instructions for performing the
2 step of automatically filling in said one or more fields of said web page form upon
3 determining that a web page being delivered through said porthole engine is
4 associated with said web page form and is registered in the porthole engine as fillable.

1 47. The computer-readable medium of Claim 45 wherein the information that
2 automatically fills in one or more fields of said web page form is provided by a
3 database coupled to the porthole engine.

1 48. The computer-readable medium of Claim 25 wherein the porthole engine restricts
2 access to particular web pages by using content filtering technology based on
3 identities of the users.

1 49. A computer system comprising:
2 a client;
3 at least one origin server; and
4 a porthole engine;
5 wherein said porthole engine is operatively coupled between the client and the
6 at least one origin server through a network;

5 a combination of the top of the web page and the bottom of the web page.

1 53. The system of Claim 49 wherein web page content of said requested content is
2 modified to pop-up one or more display windows to display said unrequested content.

1 54. The system of Claim 49 wherein web page content of said requested content is
2 modified to replace a portion of said requested content with said unrequested content.

1 55. The system of Claim 49 wherein:
2 said requested content appears on a first portion of a content display region of
3 said browser; and
4 said unrequested content appears on a second portion of said content display
5 region of said browser.

1 56. The system of Claim 49 wherein:
2 said requested content appears on a first display window of said client; and
3 said unrequested content appears on a second display window of said client.

1 57. The system of Claim 49 wherein said porthole engine is further configured to
2 determine the format in which to display said requested content and said unrequested
3 content based on one or more factors including at least one of differences in browsers,
4 components of requested web pages, and versions of the browsers.

1 58. The system of Claim 49 wherein said porthole engine is further configured to send
2 data to said client by:
3 sending frame data to said client;
4 wherein said frame data defines a plurality of frames;
5 wherein said plurality of frames includes a first frame and one or more other
6 frames;
7 wherein said frame data further specifies that said requested content is to be
8 displayed in said first frame, and that said unrequested content is to be
9 displayed in said one or more other frames.

1 59. The system of Claim 58 wherein the porthole engine is further configured:
2 to receive a series of subsequent requests from the browser in response to the
3 browser decoding said frame data, said series of subsequent requests
4 including a second request for said requested content; and
5 to respond to said second request for said requested content by requesting said
6 requested content from said at least one origin server and delivering
7 said requested content to said browser.

1 60. The system of Claim 59 wherein said porthole engine is further configured to
2 determine that said second request for said requested content is not an initial request
3 for said requested content by using information contained in the URL associated with
4 said initial request and with said second request.

1 61. The system of Claim 58 wherein:

2 said porthole engine is further configured to determine that said initial request
3 is not a request for an embedded item by using information contained
4 in the URL associated with said initial request and with said second
5 request; and
6 said porthole engine sending frame data is performed in response to
7 determining that said initial request is not a request for an embedded
8 item.

1 62. The system of Claim 49 wherein said porthole engine is further configured:
2 to determine that said initial request is not a request for an embedded item by
3 using information contained in the URL associated with said initial
4 request and with said second request; and
5 to send data that causes said unrequested content to appear on a portion of said
6 content display region of said browser in response to determining that
7 said initial request is not a request for an embedded item.

1 63. The system of Claim 49 wherein said porthole engine is further configured to send
2 data to said client to rewrite a link in an embedded frame document to affect frame
3 behavior.

1 64. The system of Claim 63 wherein rewriting a link includes changing a target attribute
2 of the link.

1 65. The system of Claim 49 wherein said porthole engine is further configured to use
2 information about a particular user to tailor the unrequested content to that particular
3 user.

1 66. The system of Claim 65 wherein the information about the particular user is selected
2 from a group consisting of:
3 information available to owners of the porthole engine;
4 information about the requested content; and
5 a combination of the information available to the owners of the porthole
6 engine and the information about the requested content.

1 67. The system of Claim 49 wherein said porthole engine is further configured to identify
2 the users to personalize the unrequested content.

1 68. The system of Claim 67 wherein said porthole engine to configured to identify the
2 users by a method selected from a group consisting of:
3 attaching cookies to web pages that are browsed by a particular user;
4 observing the radius authentication transactions and the resulting network
5 address assigned to the client;
6 tracking network addresses assigned to the users; and
7 authenticating the users.

